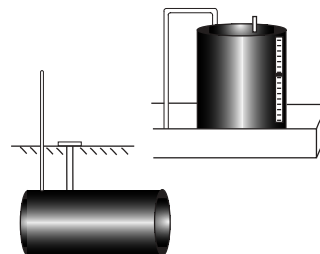


Storage Tanks

Storage tanks provide a convenient and economic method of storing materials used in your shop. They can also pose serious threats to the environment if they leak or fail. Cleaning up tank leaks may expose your company to costly liabilities.

Currently, there are an estimated 30,000 aboveground and underground storage tanks in the State of Indiana. Many of these tanks are used for fuel storage. They may also contain materials such as solvents and printing inks. Special considerations must be made when installing and maintaining storage tanks.



In this chapter, an introduction is provided on underground storage tanks (USTs) and aboveground storage tanks (ASTs). IDEM, The Department of Fire & Building Services (DFBS) and IOSHA have regulations regarding certain types of storage tanks. The regulations depend on three factors: 1) size of the tank; 2) the material stored; and 3) the total capacity of tanks in your shop. For more specific guidance, call IDEM's Underground Storage Tank Branch, the DFBS or IOSHA. See page 113.



Important Definitions

Underground Tank (UST) means a tank or tank system where 10% or more of the total tank and pipe capacity are underground. UST systems of 110 gallons or less total capacity are exempt.

Aboveground Tank means more than 90% of the total tank and piping capacity are above-ground and visible for inspection.

Release Detection means various automatic or manual methods to detect leaks from a tank.

Corrosion Protection means various methods to protect a storage tank from corrosion, for example, cathodic protection and dielectric coatings.

Overfill Protection means various methods to

prevent the overfilling of a storage tank by the use of alarms or flow restriction devices.

Spill Prevention refers to a basin, bowl or drip pan integral to the tank fill pipe that contains spillage when disconnecting the transfer hose.

Secondary Containment means a full or partial enclosure that prevents migration of tank leaks into the environment.

Vent means a piping or valve mechanism that allows vapors to be released to the atmosphere. It prevents the accumulation of excess pressure in the tank.

Do I Need to Register my Underground Storage Tank?

All USTs with few exceptions must be registered with IDEM.

There are some exemptions that may apply to print shops, for example; hydraulic lift tanks; electrical equipment tanks; emergency spill tanks emptied expeditiously; stormwater/wastewater holding

tanks; and septic systems. A UST containing heating oil (e.g., No. 2 fuel oil) for building heat for consumptive uses on the premises is also exempt. If you have any questions, on UST registration, call IDEM for guidance.

If you have an unregistered UST or you intend to install one, you must notify IDEM of that UST on Form 45223. You are also required to notify IDEM when upgrading or closing out USTs. Notification forms must be submitted within 30 days of the intended activity. You may also be required to notify the local fire department as well. Call IDEM's UST Branch for forms and additional guidance.

What UST Standards Apply?

ALL USTs must meet IDEM's new tank standards.

All currently operating USTs must meet standards for release detection, corrosion protection and spill/overfill prevention. Examples of these standards are provided below:

Release Detection



Manual tank gauging, tank tightness testing, automatic tank gauging or other release detection systems.

Corrosion Protection



Fiberglass-reinforced (RFP) tanks, coated steel tanks, steel tanks with either galvanic or impressed current corrosion protection systems

Spill & Overfill Prevention



Catch basins around fill pipes, high level alarms, flow restrictors and cutoffs

New USTs must be installed by a tank installer certified by Office of the State Fire Marshal. A Construction Design Release must be obtained from DFBS before a new installation is constructed or the capacity of an existing installation is increased. After installation of the UST system, it must be inspected before backfilling, tested for leaks, and certified by the installer before it can be filled with product.

Must I Upgrade my Existing UST?

If you had a UST installed before December 22, 1998, it is regulated as an existing UST.

Existing USTs must meet all new UST performance standards as of December 22, 1998. **If you did not upgrade your existing USTs to new tank status or close them out before that date, you are in violation of IDEM's regulations and will face penalties.**

Existing USTs



**Close or Upgrade
by December 22, 1998**

Do I Need to Keep Records for my UST?

You are required to keep certain records on file and available for inspection by IDEM.

You must keep records on all tank registrations, repairs and upgrades, inventory logs, release detection (including monitor printouts, performance claims, sampling, testing, calibration and repairs, etc.), and cathodic protection (e.g., including inspections, monitoring, and voltage and amperage readings). You must keep all records onsite and available for inspection by IDEM.

What is UST Financial Responsibility?

If you have a regulated UST, you must meet financial responsibility requirements.

If you own a UST, you are financially responsible for spills, releases, and certain third-party damages. There are six mechanisms available to demonstrate financial responsibility: self-insurance, commercial insurance, standby trust fund, letter of credit, surety bond or state fund.

The Excess Liability Fund (ELF) was established to provide coverage for the major portion of an eligible tank owner's responsibility. The tank owner must still have funds available to cover ELF deductibles in the event of a release. Contact IDEM's UST Branch for more information. See page 113 for resource contacts.

What Do I Do if I Have a Leaking UST?

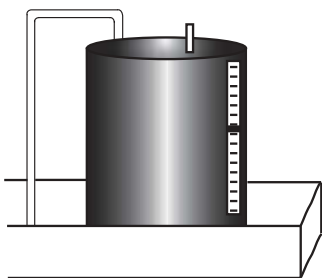
If you discover a UST release, you are required to notify IDEM.

This notification must be made within two hours of the discovery. You must take whatever actions necessary to prevent further release of the product. Such actions include removal of the tank product, removal of contaminated soil, and other mitigating measures. IDEM has a manual available, "The Underground Storage Tank Branch - Guidance Manual". This manual provides information on what you must do. At a minimum, you will have to complete a UST Closure Report. If you determine that there is significant soil and groundwater contamination, you will be required to conduct a site characterization study and implement a corrective action plan.

The leaking UST notification applies even if you were exempt from spill reporting because of the type or quantity of product spilled. See Spill Reporting on page 76 for more information.

What are the Requirements for Aboveground Storage Tanks?

Certain aboveground storage tanks are regulated by the Department of Fire & Building Services (DFBS).



Aboveground storage tanks (ASTs) containing Class I, II, IIIA and IIIB liquids (definitions on page 64) are subject to DFBS regulations for design, installation, maintenance, testing and certification. Before construction or installation of a tank, you must submit an application with design drawings to the State Building Commissioner's Office for construction design review.

There are four types of ASTs that are **exempt** from DFBS regulations:



Wastewater mixing and holding ASTs



Septic tank systems



Liquid propane gas ASTs with less than 2,000 gallon individual capacity and 4,000 gallon total facility capacity as measured in gallons of water



Portable or temporary-use ASTs containing flammable and combustible liquids with a capacity of less than 660 gallons.

What are the AST Design and Technical Standards?

There are standards that apply to tank construction, pumps, piping, vents, etc.

ASTs must meet a wide variety of DFBS and OSHA design and technical standards. There are AST construction issues regarding locale (inside/outside), structural integrity, tank support structures, building enclosure, and proximity to other tanks and operations. There are also requirements, depending on the type of flammable or combustible liquid stored, for pumps, tank vents, fill pipes/discharge lines, overflow protection devices, and vapor recovery.

Printers who propose to install an AST, should retain a qualified architect or consultant to design the AST system and guide the application through the DFBS plan review process. You should plan on taking 3-6 months to get the necessary designs and releases depending on the complexity of the AST system.

Oil Pollution Prevention Act and the SPCC Requirements

You may be subject to additional requirements for bulk oil storage.

Some printers may be required to have a Spill Prevention Control and Countermeasure (SPCC) plan. You must comply with EPA's SPCC requirements (40 CFR 112.1 through 112.7) if both of the following conditions describe your facility operations. The first is that you own or operate a non-transportation-related fixed facility that could reasonably be expected to discharge oil into or upon the navigable waters of the United States or adjoining shorelines. (The definition of navigable waters includes most rivers, streams and tributaries in Indiana.) The second is that your facility has (1) an aboveground oil storage capacity of more than **660** gallons in a single container; or (2) a total aboveground oil storage capacity of more than **1,320** gallons; or (3) a total underground buried storage capacity of more than **42,000** gallons. (Note that if a tank has the requisite *capacity*, it doesn't matter whether the tank is *filled* to that capacity. The SPCC rule applies regardless of the tank's contents.) If your facility meets the SPCC criteria, you *must* prepare a SPCC plan and follow the other provisions of the SPCC rule. Call CTAP for more guidance or go to the US EPA web site at www.epa.gov.

Do I Need to Get Any Approvals From my Local Jurisdiction?

Your local Fire Chief or Fire Marshal may also issue an approval for AST system construction.

Local approval for AST and UST installations for flammable or combustible liquids may be required. Some municipalities have local ordinances that require separate approvals or permits to install and use ASTs or USTs. These approvals may come from the fire department, planning or zoning board or other municipal board/council. Approval may be granted under a general permit for the handling and storage of hazardous materials.

